

substantially non-gelatinized starch, carbohydrates which have a lower molecular weight than starches, fiber, cellulose, or hemi-cellulose for controlling the rate of release of the encapsulant, wherein said plasticizable matrix material is plasticizable by said liquid plasticizer at a temperature which does not substantially destroy said encapsulant, said admixing being under low shear and low temperature conditions to plasticize the plasticizable material without substantially destroying the encapsulant to obtain a substantially homogeneous plasticized, viscoelastic, formable mixture,

b. forming said formable mixture into pieces, and

c. drying said pieces.

--31. A method as claimed in claim 30 wherein said at least one additional component increases the penetrability or porosity of the matrix to permit quicker release of the encapsulant from the matrix.

--32. A method as claimed in claim 30 wherein said at least one additional component comprises a sugar or a starch hydrolyzate.

--33. A method as claimed in claim 30 wherein said at least one additional component comprises an at least substantially non-gelatinized starch.

Amend

--34. A method as claimed in claim 30 wherein said durum ingredient comprises semolina.

--35. A method as claimed in claim 30 wherein a liquid encapsulant component which contains an active, sensitive encapsulant dissolved or dispersed in a liquid plasticizer is admixed with said at least one plasticizable matrix material.

--36. A method as claimed in claim 30 wherein said admixing is conducted at a temperature of less than or equal to about 50°C.

--37. A method as claimed in claim 30 wherein an additional encapsulant, in solid form, is admixed with said plasticizable matrix material.

--38. A method as claimed in claim 30 wherein said encapsulant is coated with a film-forming material prior to admixing with said plasticizable matrix material.

--39. A method as claimed in claim 30 wherein said encapsulant comprises at least one member selected from the group consisting of enzymes, vitamins, micronutrients, and live microorganisms.

--40. A method as claimed in claim 30 wherein an oil or fat is admixed with said plasticizable matrix material for controlling the rate of release of said encapsulant from the matrix.

--41. A method for encapsulating or embedding a component in a matrix comprising:

A cont

- a. obtaining a formable mixture by admixing ingredients comprising at least one plasticizable matrix material, a liquid plasticizer, an encapsulant, a matrix component which is substantially non-plasticizable at temperatures lower than the decomposition temperature of the encapsulant, and at least one component for controlling the rate of release of the encapsulant, wherein said plasticizable matrix material is plasticizable by said liquid plasticizer at a temperature which does not substantially destroy said encapsulant, said admixing being under low shear and low temperature conditions to plasticize the plasticizable material without substantially destroying the encapsulant to obtain a substantially homogeneous plasticized, viscoelastic, formable mixture,
- b. forming said formable mixture into pieces, and
- c. drying said pieces.

--42. A method as claimed in claim 41 wherein the substantially non-plasticizable matrix component is selected from the group consisting of at least substantially non-gelatinized starch, carbohydrates which have a lower molecular weight than starches, fiber, cellulose, and hemi-cellulose.

--43. A method as claimed in claim 41 wherein the substantially non-plasticizable matrix component comprises an at least substantially non-gelatinized starch, said plasticizable matrix material comprises semolina, and said at least one component for controlling the rate of release of the encapsulant comprises a fat or oil.

--44. A method as claimed in claim 41 wherein a liquid encapsulant component which contains said encapsulant dissolved or dispersed in said liquid plasticizer is admixed with said at least one plasticizable matrix material.

--45. A method as claimed in claim 44 wherein said encapsulant component comprises at least one member selected from the group consisting of enzymes, vitamins, micronutrients, and live microorganisms.

Sul DS
--46. An edible product for human or animal consumption comprising an encapsulated product, said encapsulated product being obtained by admixing at least one plasticizable matrix material, a liquid plasticizer, an encapsulant, a matrix component which is substantially non-plasticizable at temperatures lower than the decomposition temperature of the encapsulant, and at least one component for controlling the rate of release of the encapsulant, wherein the substantially non-plasticizable matrix component comprises an at least substantially non-gelatinized starch, said plasticizable matrix material comprises at least one member selected from the group consisting of high gluten content flours, gluten from wheat, durum wheat, durum semolina, pregelatinized starch,